

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of Re-Assessing FCC RF exposure standards)

Notice of Proposed Rulemaking)
18 FCC Rcd 13187, 13188 ¶1 (2003)) ET Docket No. 03-137

And)
Service Rules for the Advanced Wireless Services) WT Docket No. 12-357
H Block---Implementing Section 6401 of the)
Middle Class Tax Relief and Job Creation Act of)
2012 Related to the 1915-1920 MHz and)
1995-2000 MHz Bands ¶53 footnote 95)

To: Office of the Secretary
Federal Communications Commission
Washington, DC 20554

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February 6, 2013

AFFIDAVIT OF CYNTHIA FRANKLIN

I, Cynthia Franklin, attest that my statements are true to the best of my knowledge.

I am president of Consumers for Safe Cell Phones, a non-profit, 501C3 corporation organized under the laws of the state of Washington. CSCP's mission is to educate consumers, government and the general public on the health and safety issues related to the use of cell phones and other wireless consumer devices, and on the regulations at the federal, state, and local level that relate to such health and safety issues.

Please consider the following statements regarding the necessity of re-assessing the FCC RF exposure guidelines to take into account the growing scientific consensus of non-thermal biological effects of microwave radiation.

I. FCC must re-assess exposure standards and incorporate the growing scientific consensus that microwave radiation impacts biological systems at non-thermal levels thousands of times lower than current exposure guidelines

It is a well known fact that when current exposure standards were adopted by IEEE and ICNIRP, these organizations were dominated by voting committee members representing industry and the military. Today, this undue influence persists resulting in these organizations' refusal to reconsider their faulty assumption that non-ionizing radiation's only biological impact is from thermal effects.

In 1994, the CTIA hired Dr. George Carlo to head up a \$28 million research project to study the reported health risks from cell phone use. Fifteen years later, in 2010, Dr. Carlo reflected back upon his research on behalf of the CTIA:

"During the 1990s', the program I headed which was funded by the mobile phone industry was intended to fill the safety study data gaps caused by the FDA's error of omission in 1984 [failing to require pre-market testing of cell phones]. Our work was specifically designed to meet all FDA standards for safety studies, including Good Laboratory Practices and other assurances of scientific rigor. As such, that work remains the only legitimate safety data on cell phones upon which a direct safety assessment can be made. Among the more than fifty studies completed in our program, were results indicating: genetic damage in human blood exposed to cell phone radiation; more than a doubling in the risk of rare neuro-epithelial brain tumors among cell phone users compared to non-users; and a statistically significant correlation between the side of the head where cell phones are used and the location of tumors among cell phone users. Any one of these findings, had they been completed in the context of mandated pre-market testing prior to 1984, would have prevented cell phones from making it into the market place.

Most importantly, however, is that the FCC's emission guidelines are not predictive of consumer safety... the emission guidelines are based on thermal data (harkening back to the microwave oven studies of the 1980s) and have been widely dismissed by the public health community as having no relevance to the pathological mechanisms through which cell phones do their damage.

The cell phone industry has failed to do its legal duty in proving safety and the federal regulatory system has failed and continues to fail consumers by succumbing to constant industry political pressure."

In 1995, Dr. Henry Lai, a professor at University of Washington, published a study that found a level of microwave radiation exposure considered safe by government standards had resulted in broken and/or damaged DNA in the brain cells of rats.

Other independent, published studies have replicated Prof. Lai's findings. This proven biological effect resulting in documented DNA damage occurred at an average exposure of 2.2 $\mu\text{W}/\text{cm}^2$, **500 times lower than the FCC's current limit.**

This and over 1,000 other studies show non-thermal biological effects at levels 1,000 times lower than FCC's current limit. (2012 BioInitiative Report)

IEEE, ICNIRP, and U.S. federal agencies mandated to protect citizens from harm due to microwave radiation exposure have been aware of the documented risks at levels far below the current standards for almost 20 years – and yet they continue to either do nothing or to take actions that deny the reality of the situation.

It is mandatory that the FCC take action immediately to call for a re-assessment of its obsolete and inadequate exposure standards and adopt new standards that take into account the documented non-thermal effects from microwave radiation.

II. The industry and U.S. government agencies' claims that there are no documented health risks from cell phone exposure studies are factually and morally wrong.

In May 2011, the World Health Organization issued a press release which stated, "

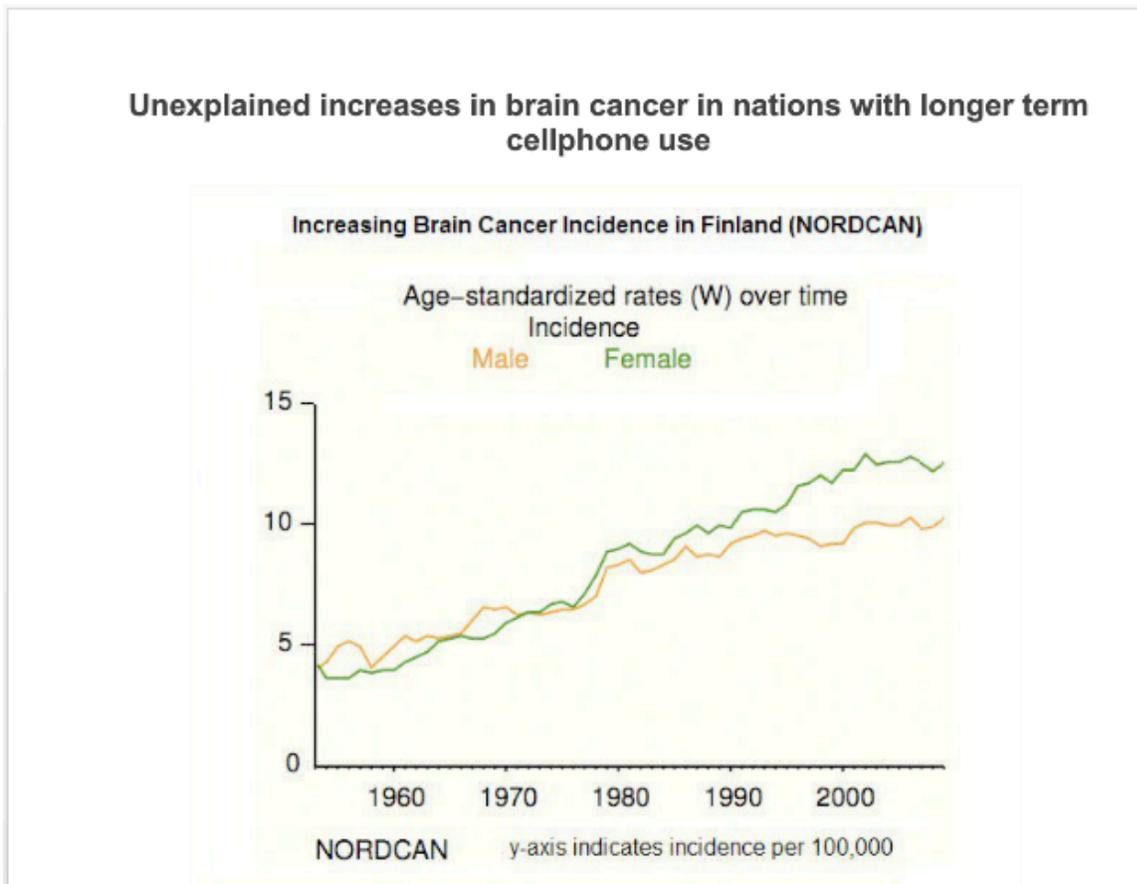
*"The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as **possibly carcinogenic to humans (Group 2B)**, based on an increased risk for **glioma**, a malignant type of brain cancer¹, associated with wireless phone use."*

The industry-funded, multi-national Interphone study which was touted as the final word on the issue of cell phones and the risk for brain cancer did actually find an increased risk for malignant brain tumor (glioma) after 10 years of cell phone use at 30 minutes per day. Yet, the industry has white-washed the finding and reported to media that there was no risk found.

Dr. Hardell, a prominent researcher in the field of cell phone health risks, analyzed data from his long term studies and determined that a young person who begins using a cell phone before the age of 20 has a 5-fold increased risk of developing brain cancer.

CTIA executives and their scientific “surrogates” have refused to accept the findings of the thousands of studies showing health risks from microwave radiation exposure. Instead, they denounce the mounting evidence of an association with brain cancer from cell phone exposure by pointing to brain tumor registries around the world - making the unfounded and ridiculous claim that because the rates aren’t rising, there is no brain tumor risk. Biologists and epidemiologists understand that brain tumors’ latency periods are anywhere from 10-50 years. It has only been in the past 12-15 years that cell phone use has been widespread in the U.S., with children and young people only getting fully on board in the past 10 years.

However, brain tumor rates are indeed rising in countries around the world, including in the U.S. Finland, a country with a longer period of cell phone use by their population compared to that of the U.S., is showing an unexplained increase in brain cancer (see chart below):



A recent study shows that here in the US, brain cancer registries are showing an increase in frontal and temporal lobe tumors, the parts of the brain most affected by cell phone use. (Zada et al, 2012) This study was based upon Los Angeles County Cancer Surveillance Program (LAC), the California Cancer Registry (CCR), and the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program for 1992 to 2006.

These are only a few of the many reasons that conclusively show that the IEEE and ICNIRP exposure standards are not adequate to protect U.S. citizens from the known hazards of microwave radiation exposure. The FCC must act immediately to reassess its exposure guidelines and consider the most recent scientific findings.

III. Current FCC SAR cell phone compliance testing does not adequately account for absorption into the brains and bodies of children and small adults.

As stated in a recent letter to the FCC by the American Academy of Pediatrics, *"In fact, according to IARC, when used by children, the average RF energy deposition is two times higher in the brain and 10 times higher in the bone marrow of the skull, compared with mobile phone use by adults...it is essential that any new standard for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded throughout their lifetimes."* Dr. Robert Block, President of the American Academy of Pediatrics, (2012)

The FCC must take immediate action to modify the basis upon which SAR testing is founded. I.e.; the current dimensions of SAM, being based upon a 220 pound 6'2" man, do not account for over 90% of the population and may allow SAR levels to exceed the current limit for children, teens and small adults.

IV. The FCC must abide by the GAO's findings and modify its testing protocol immediately to require compliance testing of cell phones directly against the body with no separation distance to simulate how these products are designed, marketed and used by today's consumers.

The July 2012 GAO report *"Telecommunications: Exposure and Testing Requirements for Mobile Phones Should Be Reassessed"* found that:

"By not formally reassessing its current limit, FCC cannot ensure it is using a limit that reflects the latest research on RF energy exposure. FCC has also not reassessed its testing requirements to ensure that they identify the maximum RF energy exposure a user could experience. Some consumers may use mobile phones against the body, which FCC does not currently test, and could result in RF energy exposure higher than the FCC limit."

V. FCC must require labeling regarding the safe separation use distance on all cell phones in locations that will be seen by the typical consumer.

Consumers are not being informed of the current safe separation distance warning due to manufacturers being allowed to deceptively hide the FCC-required information in the fine print of manuals written in technical jargon few consumers understand. Until testing is required for all cell phones with no separation between the back of the phone and the body (as they are currently used), this information MUST appear on a visible sticker or label located in a prominent place either on the phone or inside the packaging.

Respectfully submitted,

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